



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0024; Project Identifier MCAI-2021-00994-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Leonardo S.p.a. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2021-17-18, which applies to all Leonardo S.p.a. Model A109C, A109K2, A109E, A109S, and AW109SP helicopters. AD 2021-17-18 requires an inspection of certain tail rotor (TR) sleeve assemblies for discrepancies, an inspection of certain TR shaft assemblies for discrepancies, a repetitive measurement of the position of the bushing of the TR sleeve assembly in relation to the pitch change slider assembly, and corrective actions if necessary. Since the FAA issued AD 2021-17-18, the FAA has determined that it is necessary to require repetitive inspections of certain TR sleeve assemblies and corrective actions. This proposed AD would retain the requirements of AD 2021-17-18; and would also require repetitive inspections of the TR sleeve assemblies, and corrective actions if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet: [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0024.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0024; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace

Engineer, COS Program Management Section, Operational Safety Branch, FAA, 1600

Stewart Ave., Suite 410, Westbury, NY 11590; phone: (516) 228-7330; email: andrea.jimenez@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0024; Project Identifier MCAI-2021-00994-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez,

Aerospace Engineer, COS Program Management Section, Operational Safety Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; phone: (516) 228-7330; email: andrea.jimenez@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA issued AD 2021-17-18, Amendment 39-21701 (86 FR 46766, August 20, 2021) (AD 2021-17-18), which applies to all Leonardo S.p.a. Model A109C, A109K2, A109E, A109S, and AW109SP helicopters. AD 2021-17-18 requires an inspection of certain TR sleeve assemblies for discrepancies, an inspection of certain TR shaft assemblies for discrepancies, a repetitive measurement of the position of the bushing of the TR sleeve assembly in relation to the pitch change slider assembly, and corrective actions if necessary. The FAA issued AD 2021-17-18 to address cracking on the TR mast, which could lead to failure of the TR mast, with consequent loss of control of the helicopter.

## **Actions Since AD 2021-17-18 Was Issued**

The preamble to AD 2021-17-18 explains that the FAA was considering further rulemaking to address the actions specified in paragraphs (5) and (9) of EASA AD 2021-0144, dated June 17, 2021 (EASA AD 2021-0144). The FAA has now determined that further rulemaking is indeed necessary, and this proposed AD follows from that determination.

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0144 (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Leonardo S.p.a. (formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.) Model A109C, A109K2, A109E, A109S, and AW109SP helicopters.

This proposed AD was prompted by a determination that additional actions are required to address the unsafe condition. This proposed AD was also prompted by a report of a crack on the TR mast. The FAA is proposing this AD to address cracking on the TR mast, which could lead to failure of the TR mast, with consequent loss of control of the helicopter. See the MCAI for additional background information.

#### **Related Service Information Under 1 CFR Part 51**

This proposed AD would require EASA AD 2021-0144, which the Director of the Federal Register approved for incorporation by reference as of September 7, 2021 (86 FR 46766, August 20, 2021). This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA’s Determination and Requirements of this Proposed AD**

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0144 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under “Difference Between this Proposed AD and the MCAI.”

#### **Explanation of Required Compliance Information**

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA

ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities to use this process. As a result, EASA AD 2021-0144 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0144 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA AD. Service information specified in EASA AD 2021-0144 that is required for compliance with EASA AD 2021-0144 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0024 after the FAA final rule is published.

#### **Difference Between this Proposed AD and the MCAI**

Paragraph (1) of EASA AD 2021-0144 specifies the inspection must be done within 25 flight hours or 3 months, whichever occurs first. However, this AD requires the inspection to be done within 25 hours time-in-service after September 7, 2021 (the effective date of AD 2021-17-18).

#### **Interim Action**

The FAA considers this proposed AD interim action. The inspection reports that are required by this proposed AD will enable the manufacturer to obtain better insight into the nature, cause, and extent of the cracking, and eventually to develop final action to address the unsafe condition. Once final action has been identified, the FAA might consider further rulemaking.

## Costs of Compliance

The FAA estimates that this proposed AD affects 133 helicopters of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained Inspections/Measurements from AD 2021-17-18	Up to 6 work-hours X \$85 per hour = \$510 per inspection/measurement cycle	\$0	Up to \$510 per inspection/measurement cycle	Up to \$67,830 per inspection/measurement cycle
New proposed Repetitive Inspections	Up to 1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	Up to \$85 per inspection cycle	Up to \$11,305 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition actions (replacements, repairs, and reporting) that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

### Estimated costs of on-condition actions\*

Action	Labor cost	Parts cost	Cost per product
Retained Replacements	19 work-hours X \$85 per hour = \$1,615	\$88,760	Up to \$90,375
Retained Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85

\* The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this proposed AD. However, the cost for restoring solid film lubricant is considered to be negligible.

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

## **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.



## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2021-17-18, Amendment 39-21701 (86 FR 46766, August 20, 2021); and

- b. Adding the following new AD:

**Leonardo S.p.a.:** Docket No. FAA-2022-0024; Project Identifier MCAI-2021-00994-R.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected Airworthiness Directives (ADs)**

This AD replaces AD 2021-17-18, Amendment 39-21701 (86 FR 46766, August 20, 2021) (AD 2021-17-18).

**(c) Applicability**

This AD applies to all Leonardo S.p.a. Model A109C, A109K2, A109E, A109S, and AW109SP helicopters, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 6400, Tail Rotor System.

**(e) Unsafe Condition**

This AD was prompted by a report of a crack on the tail rotor (TR) mast. The FAA is issuing this AD to address cracking on the TR mast, which could lead to failure of the TR mast, with consequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0144, dated June 17, 2021 (EASA AD 2021-0144).

**(h) Exceptions to EASA AD 2021-0144**

(1) Where EASA AD 2021-0144 refers to its effective date, this AD requires using September 7, 2021 (the effective date of AD 2021-17-18).

(2) The “Remarks” section of EASA AD 2021-0144 does not apply to this AD.

(3) Where EASA AD 2021-0144 refers to flight hours (FH), this AD requires using hours time-in-service.

(4) Where paragraph (1) of EASA AD 2021-0144 specifies a compliance time of 25 FH or 3 months, whichever occurs first, this AD requires compliance within 25 hours time-in-service after September 7, 2021 (the effective date of AD 2021-17-18).

(5) Where Note 1 of EASA AD 2021-0144 specifies a tolerance of 30 FH, this AD does not allow a tolerance.

(6) The initial compliance time for the inspection specified in paragraph (5) of EASA AD 2021-0144 is at the compliance time specified in paragraph (5) of EASA AD 2021-0144, or within 30 days after the effective date of this AD, whichever occurs later.

(7) Where paragraph (6) of EASA AD 2021-0144 states the term “discrepancies,” for the purposes of this AD discrepancies include dents, corrosion, elongation, scratches, wear, excessive wear (web visible), fretting, or stepping.

(8) Where paragraph (7) of EASA AD 2021-0144 states the term “discrepancies,” for the purposes of this AD discrepancies include abnormal wear condition, corrosion, fretting, crack, or damage (including dents, elongation, scratches, or stepping).

(9) Where EASA AD 2021-0144 defines “serviceable part,” and that definition specifies instructions that are “approved under Leonardo Design Organization Approval (DOA) or by EASA,” for this AD, the repair must be accomplished using a method approved by the Manager, General Aviation and Rotorcraft Section, International Validation Branch, FAA; or EASA; or Leonardo S.p.a.’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(10) Where Note 2 and paragraph (7) of EASA AD 2021-0144 specify instructions that are “approved under Leonardo DOA or by EASA,” for this AD, the repair must be accomplished using a method approved by the Manager, General Aviation and Rotorcraft Section, International Validation Branch, FAA; or EASA; or Leonardo

S.p.a.'s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(11) Where the service information referenced in EASA AD 2021-0144 specifies to contact the manufacturer for corrective action, this AD requires the repair to be done in accordance with a method approved by the Manager, General Aviation and Rotorcraft Section, International Validation Branch, FAA; or EASA; or Leonardo S.p.a.'s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(12) Where the service information referenced in EASA AD 2021-0144 specifies to discard a certain part, this AD requires removing that part from service.

**(i) Special Flight Permit**

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the actions of this AD can be performed, provided no passengers are onboard.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

(1) For EASA AD 2021-0144, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet: [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0024.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; phone: (516) 228-7330; email: [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

Issued on January 27, 2022.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2022-02073 Filed: 2/2/2022 8:45 am; Publication Date: 2/3/2022]